

Appl. No. 10/579,569
Amdt. dated September 17, 2009
Reply to Final Office action of May 26, 2009

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10. (Canceled)

11. (Currently amended) In a multipiston pump, having a pump housing, a motor, and an eccentric unit driven by the motor, having an arrangement comprising a plurality of piston pumps, which are combined hydraulically by means of connecting conduits in the pump housing into first and second pump units to supply two hydraulically separate hydraulic circuits with pressure fluid, the low-pressure sides of the piston pumps in the first pump unit being connected hydraulically to one another by a first low-pressure conduit and the high-pressure sides of the piston pumps in the first pump unit being connected hydraulically to one another by a first high-pressure conduit, the low-pressure sides of the piston pumps in the second pump unit being connected hydraulically to one another by a second low-pressure conduit and the high-pressure sides of the piston pumps in the second pump unit being connected hydraulically to one another by a second high-pressure conduit, and the eccentric unit and the arrangement of piston pumps being adapted structurally to one another in the pump housing such that the piston pumps of one pump unit are always actuated in alternation with the piston pumps of the second pump unit with a phase offset between the actuation of the piston pumps of one pump unit on the one hand and the actuation of the two pump units

on the other hand, so that the intake phases of at least two piston pumps overlap, without the piston pumps being in phase opposition to one another, the improvement wherein the eccentric unit comprises at least two axially spaced apart cams, wherein the piston pumps are located in a number of sectional planes of the pump housing that correspond to the number of cams with the axial spacing of the cams being essentially equivalent to the axial spacing of these sectional planes; wherein the connecting conduits of the pump units are located in a region of the pump housing defined by the sectional planes, and wherein at least one of the piston pumps, combined hydraulically into a pump unit, is actuated by a different cam from the respective other piston pumps of the corresponding pump unit.

Claim 12. **(Canceled)**

13. **(Previously presented)** The multipiston pump in accordance with claim 11, further comprising a rotary angle spacing in the range of between 110° and 130° between two successively actuated piston pumps of a pump unit.

14. **(Currently amended)** The multipiston pump in accordance with claim 11, wherein the rotary angle spacing between successive actuations of two piston pumps is ~~in the range of~~ approximately 30° ~~or in the range of~~ approximately 90°.

Claim 15. **(Canceled)**

16. **(Currently amended)** The multipiston pump in accordance with claim 13, wherein the rotary angle spacing between successive actuations of two piston pumps is ~~in the range of~~ approximately 30° or ~~in the range of~~ approximately 90°.

17. **(Currently amended)** The multipiston pump in accordance with claim 14, wherein the cams are rotated by the rotary angle relative to one another with the rotary angle spacing of the cams being ~~in the range of~~ approximately 150°.

18. **(Previously presented)** The multipiston pump in accordance with claim 11, wherein each cam of the eccentric unit drives at least two piston pumps.

Claim 19. **(Canceled)**

20. **(Previously presented)** The multipiston pump in accordance with claim 11, wherein the piston pumps that are combined into a pump unit are located spatially immediately adjacent one another in the pump housing.

Claim 21. **(Canceled)**

22. **(Previously presented)** The multipiston pump in accordance with claim 13, wherein the piston pumps that are combined into a pump unit are located spatially immediately adjacent one another in the pump housing.

Claims 23-25. **(Canceled)**

26. **(Previously presented)** The multipiston pump in accordance with claim 11, wherein one piston of at least one of the piston pumps is embodied as a stepped piston and defines two pressure chambers each, which are of variable volume in phase opposition to one another.

Claim 27. **(Canceled)**

28. **(Previously presented)** The multipiston pump in accordance with claim 20, wherein one piston of at least one of the piston pumps is embodied as a stepped piston and defines two pressure chambers each, which are of variable volume in phase opposition to one another.

29. **(Previously presented)** In an electrohydraulic vehicle brake system, having an external-force-actuated service brake and a muscle-force-actuated emergency brake, each with two brake circuits the improvement wherein the service brake is equipped with a multipiston pump as defined claim 11.

30. **(Previously presented)** The multipiston pump in accordance with claim 13, further comprising a rotary angle spacing of 120° between two successively actuated piston pumps of a pump unit.